



Attorney Docket No. 077128-0122

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

William J. Mertz, Danny Charles Thompson, Katherine
Yiu-Kit Leung

Application No.: 10/657,394

Confirmation No.: 9357

Filed On: September 8, 2003

Examiner: Margaret G. Moore

Art Unit: 1712

For: RELEASE LINERS AND PROCESS FOR
MAKING THE SAME

DECLARATION OF DANNY CHARLES THOMPSON PURSUANT TO 37 CFR 1.132

MAIL STOP AMENDMENT

Commissioner For Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Dear Sir:

I, Danny Charles Thompson, hereby declare as follows:

1. I am Manager-Product Development with Loparex, LLC, the assignee of the present patent application. Loparex, LLC is the largest commercial supplier of siliconized release papers and films, I am also one of the inventors in the present application.
2. My formal education includes a Master of Chemical Engineering degree from Virginia Tech in 1986.
3. I have over twenty-two (22) years of experience in the field of chemical coatings with emphasis on polymer chemistry and silicone chemistry. As the Manager of Product Development, my primary responsibilities include overseeing new product development projects for specific customer applications.

4. In my present position and throughout my career, I have conducted and supervised research in the development of new products in the silicone release liner area. In addition, I hire, train and supervise other engineers working in the field of silicone release liner research and development. Accordingly, I have a good understanding of the level of skill and knowledge possessed by those of ordinary skill in the art of silicone release liner technology.

5. I have reviewed and am familiar with U.S. Patent No. 5,576,356 to Leir et al. The Leir patent is being cited in the present office Action mailed September 12, 2007, to reject claims 1-16 as being anticipated by or in the alternative, obvious in view the Leir patent.

6. I have also reviewed and am familiar with the two Eckberg patents, U.S. Patent Nos. 5,258,480 and 5,650,453. These patents are also being cited in the present Office Action to reject claims 1-16 as being anticipated by, or in the alternative, obvious in view of the Eckberg patents.

7. It has been asserted in the Office Action that the compositions of Leir, which use a reactive diluent is equivalent to the organic solvent in the present invention, and thus results in the release liner having the significantly reduced amounts of total silicone extractables and volatile silicone extractables as in the present invention. It is further asserted in the Office Action that the Eckberg patents teach a radiation curable silicone composition, which is treated with heat and high velocity air, and likewise results in the same product as the present invention. Thus, it is asserted that the cited references inherently are the same product as the present invention.

8. In order to illustrate the differences between the present invention and the compositions of the cited references, we set out experiments to compare the examples in the cited references with those of the present application. The following chart lists the corresponding examples in Leir and both Eckberg patents, compared to two examples of product made in accordance with Example 6 of the present application:

Loparex Inside and Outside Testing
LO-EX Patent

	Si Coat Wt (Lb/ream)	Extractables (micrograms/sq cm)	Outgassing Siloxanes (nanograms/sq cm)	Outgassing Total Organics (nanograms/sq cm)
Leir Example 33	0.367	2	33	380
Leir Example 34	0.4855	1.86	107	762
Eckberg '480 Patent	3.7	1.91	41	205
Eckberg '453 Patent (A)	0.61	2.02	2.23	108
Eckberg '453 Patent (B)	0.41	1.17	2.41	387
Loparex LO-EX (1)	0.2	0.42	1.49	6.18
Loparex LO-EX (2)	0.11	0.08	4.84	13.3

A ream is 3000 square feet.

Extractables were measured by the Atomic Absorption method described in the patent application text.

Outgassing testing was done by Innovatech labs according to Seagate Specification #20800020-001. Outgassing was done at 85°C for 3 hours, then the sample was introduced into the GC/MS for analysis.

Components for the experimental formulas are as follows:

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Leir Example 33

GE UV-9300	40 parts
CHVE	20 parts
Limonene Oxide	15 parts
Limonene	25 parts
UV-9390c	3 parts
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Total	103 parts

Leir Example 34

GE UV 9300	35 parts
CHVE	20 parts
Limonene Oxide	15 parts
Limonene	30 parts
UV-9390c	3 parts
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Total	103 parts

Eckberg '480 patent

UV-9400	100 parts
UV-9390C	3 parts
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Total	103 parts

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Eckberg '453 patent (A formula)

UV-9400	50 parts
CHVE	50 parts
UV-9390c	3 parts
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Total	103 parts

Eckberg '453 patent (B formula)

UV-9400	30 parts
CHVE	70 parts
UV-9390c	3 parts
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Total	103 parts

Loparex LLC LO-EX™ (Generation 2, Example 6)

PC-601	20 parts
Heptane	50 parts
Toluene	30 parts
PC-702	0.6 parts
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Total	100.6 parts

Loparex LLC LO-EX™ (Generation 3)

PC-615	20 parts
Heptane	50 parts
Toluene	30 parts
PC-702	0.6 parts
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Total	100.6 parts

9. As one of ordinary skill in the art, it is my opinion that the compositions of Leir and Eckberg cannot result on the same product with the extremely low levels of volatiles as in the present invention. This is clear from the data presented above. The examples of the present application illustrated above provides an analysis of the volatile content by outgassing, wherein the main component is siloxanes. The release liners of the present invention have a 1/10 as much outgassing material as a release liner prepared using the process described in Leir and both Eckberg patents. Thus, neither Leir nor the Eckberg patents provide the same low level of volatiles as in the present invention.

10. Similarly, it is also my opinion that the composition of Leir cannot result in the same product with extremely low levels of extractables as the present invention. This is illustrated by a comparison of the data presented above. Similarly, the level of extractables recorded for the Eckberg patents likewise are at levels higher than that of the present invention.

11. Based on the above facts, it is my opinion that neither Leir nor the Eckberg patents disclose, teach or suggest a release liner comprising a radiation curable release coating dissolved in an organic solvent coated onto a surface of a substrate having unexpected and significantly reduced amounts of extractables. Furthermore, it is my opinion that neither Leir nor the Eckberg patents disclose, teach or suggest that the resultant coating has no more than about 1.5 micrograms per square centimeter total extractables and no more than 10 ppm volatile silicone compounds. The Eckberg '453 (b) coating contains ten times as much total volatiles as does the present invention. There is no experimental evidence in any of the cited references that the level of extractables in their products is the same or less than in the present invention. Therefore, it is not inherent that Leir et al. or either Eckberg patent discloses a product with the same properties, such as low levels of extractables, as in the present invention.

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that there statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued therefrom.

Respectfully submitted,

Date: March 11, 2008

By  _____

Danny Charles Thompson

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